

Work Order ID 115501

April-02-14 11:13:31 AM

115501

Page 1

Item ID: D3391-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fwd Tube Assembly
 Start Date: 4/02/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLS Date: 140402 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3391	I

100		0.00							
100	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	Cut as per dwg.								

110		0.00							
110	BENDING MACHINE - SKIDTUBES								
CNC Bend:1	Memo	0.00							
CNC Delta 100 Bender	Bend as per Dwg D3391 Using Bend Prog 3391021								

120		0.00							
120	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									

11-6.58

DAS
03
9-88

DP 14-4-15

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Item ID: D3391-021 Accept ***N900040100*** Setup Start ***NS1***
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Start Date: 4/02/14 Start Qty: 1.00 ***1*** Cust Item ID:
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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	HAAS CNC VERTICAL MACHINING #1	0.00							
130									
HAAS 1	Memo	0.00				1	Ø		MH 4/08/07
HAAS CNC vertical machine #1	1-Machine as per Folio FA590 Rev. <u>I</u> & Dwg D3391 Rev. <u>I</u> Identify as D3391-1 2-Deburr								
140	QC2- Inspect parts off machine FAI/FAIB	0.00							
140									
QC	Memo	0.00				1	Ø		MH 4/05/07
Quality Control									
150	CONVENTIONAL MILLING MACHINE	0.00							
150									
Mill Conv	Memo	0.00				1			14-5-28
Conventional Milling Machine	Drill X1 Aft cap as per Dwg D3391 .1875" dia								

888 13 045

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1 15501

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Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Fwd Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 4/16/14 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code
---------	--------	-----------

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

DAS
13
9-89

160

QC2- Inspect parts off machine FAI/FAIB

0.00

160

QC

Memo

0.00

Quality Control

170

QC8- Inspect parts - second check

0.00

170

QC

Memo

0.00

Quality Control

**DAS
08
9-89**

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

0.00

180

Skidtubes

Skidtubes

Memo

0.00

1-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

2-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

6-Deburr & Scribe Batch number Inside aft end.

7-Transfer drill D3391-021 with D3391-023

NO WEARPLATE HOLES ARE TRANSFER DRILLED

MID TUBE BATCH # 123428

14-6-304/Dec

14-8-14

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Item ID: D3391-021

Accept

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Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Fwd Tube Assembly

Start Date: 4/02/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/16/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00

190

QC

Memo

0.00

Quality Control

① 14-08-18

DAS
9
9-89

200

Chemical Conversion Coat per QSI005 4.1

0.00

200

HandFinish

Memo

0.00

Hand Finishing

14-8-20

210

QC7-Inspect Chemical Conversion Coat

0.00

210

QC

Memo

0.00

Quality Control

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14-8-20

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	Skidtubes	0.00							
220									
Skidtubes	Memo	0.00							
Skidtubes	1-instal spacers as per dwg D3391 A/R Magnabond 6398 batch: <u>H129172</u> exp. date: <u>14-12-30</u> cure time 12hrs. as per QSI015 2- grind crossbolt flush 3-back drill crossbolt if necessary								
230	QC5- Inspect part completeness to step on W/O	0.00							
230									
QC	Memo	0.00							
Quality Control									
235	Pressure Wash per QSI005 4.3	0.00							
235									
HandFinish	Memo	0.00							
Hand Finishing	AND REALODINE AS PER QSI 005								

DAS
9
9-89

14-09-19

1

14-09-23

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Item ID: D3391-021 Accept ***N900040100*** Setup Start ***NS1***
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Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 *240* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per OSI005 4.3-Alum <i>M 128959</i> Memo START TIME: <i>1:35</i> OVEN TEMPERATURE: <i>320</i> FINISH TIME: <i>2:05</i>	0.00 0.00				<i>1</i>	<i>0</i>	<i>14-0-24</i>	<i>DAS 34 989</i>
250 *250* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<i>1x</i>	<i>0</i>	<i>14/09/24</i>	<i>DAS 15 9-89</i>
254 *254* HandFinish Hand Finishing	Assemble as per dwg Memo	0.00 0.00				<i>1x</i>	<i>0</i>	<i>14/09/24</i>	

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Item ID: D3391-021

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Fwd Tube Assembly

Start Date: 4/02/14 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 4/16/14 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

256

QC5- Inspect part completeness to step on W/O

0.00

256

QC

Memo

0.00

Quality Control

38
9-89

14-9-25

260

Identify as per dwg & Stock Location: w/o

0.00

260

Packaging

Memo

0.00

Packaging

0412-742-043/B115494

14/09/25

280

QC21- Final Inspection - Work Order Release

0.00

280

QC

Memo

0.00

Quality Control

MLJ 14-09-26

mf
14-9-25

Picklist Print

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115501

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A05.09.13New issue KJ/JLM
 IPP B06.02.10Dwg rev.D ecn 773 EC
 IPP C06.05.02Added inspections EC
 IPP D 07.03.13 rev F dwg EC
 IPP E 07.11.07 revG dwg ecn1053P EC verified by: DD
 IPP Rev:f ECN 1056 07-11-12 DD verified by: EC
 IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC
 IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
 IPP Rev I 09.02.02 added hardware EC verified by: DD IPP Rev:J
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4095-051		Manufactured	No				Each	9.0000		1			
D4095-051									**			11/09/14	24
Wearpad Assembly													

Location	Loc Qty	Loc Code
FP001	9	B116096
108291	9	

D6013-047		Manufactured	No			100	Each	166.0000	1	1			
D6013-047									**			04/14/14	
Skidtube Material													

Location	Loc Qty	Loc Code
LG003	166	
72505	42	
86064	124	

Picklist Print

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Work Order ID: 115501

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Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

220

Each

300.0000

4

D3670-4-200

Bushing

**

14-8-20

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

290

103880

39

109108

242

96240

9

24

D3401-041

Manufactured No

Each

30.0000

1

D3401-041

Tow Cap Assembly

**

sl w/09/20

Location

Loc Qty

Loc Code

FP001

30

103868

5

109127

9

92680

1

94116

4

94303

11

x1

Picklist Print

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Work Order ID: 115501

115501

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

Each

9,644.000

10

NAS1149C0332R

WASHER

Location

Loc Qty

Loc Code

GA

1005

125654

1005

ST292

4968

m128591

4968

st510

3671

m126319

61

m127306

2500

m127410

1084

m127831

26

X10

AN3C4A

Purchased

No

Each

2,208.000

10

AN3C4A

Bolt

Location

Loc Qty

Loc Code

FG

20

122814

20

ST350/513

1000

M128606

1000

ST512

3

124221

3

ST513

1185

125388

122

M127410

1

M127832

62

M128634

1000

X1129520

X10

Picklist Print

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Work Order ID: 115501

115501

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

Each

1,420.000

4

D3672-1

Phenolic Washer

ll 4/09/24

Location

Loc Qty

Loc Code

FG

10

85222

10

ST060

1410

103845

4

112218

500

113581

500

93886

224

99099

182

84

AELS-1032-225

AELS8-1032-225 Purchased

No

Each

400.0000

10

AFI S-1032-225 ✓

Insert

AL57-1032-225

ll 4/09/24

Location

Loc Qty

Loc Code

ST280

400

m128179

400

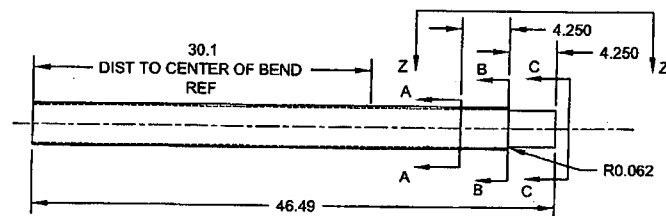
11 128649

Y10

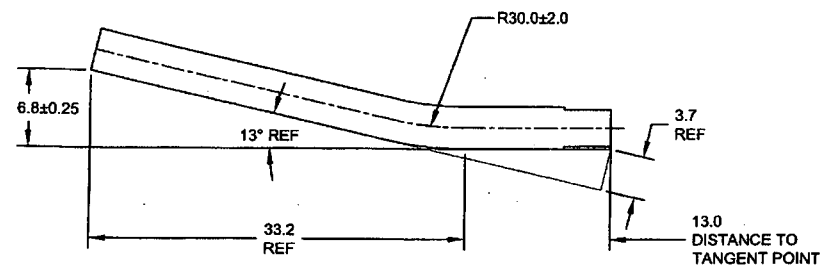
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Shop Packet Print

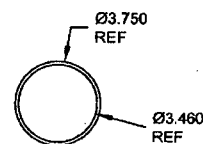
Page 4



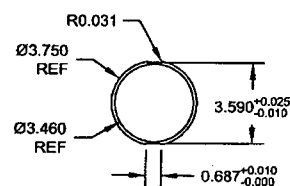
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



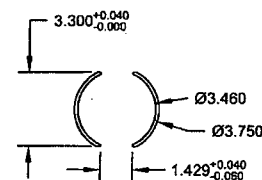
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



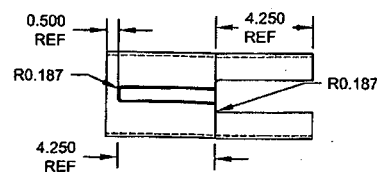
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SCALE 2X



SECTION B-B
SCALE 2X



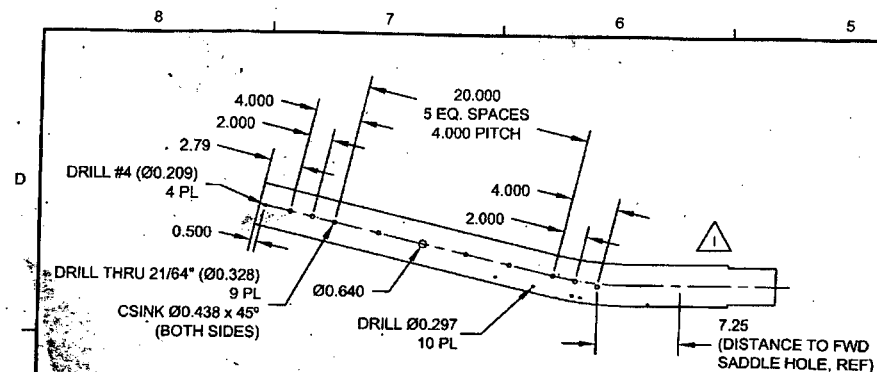
SECTION C-C
SCALE 2X



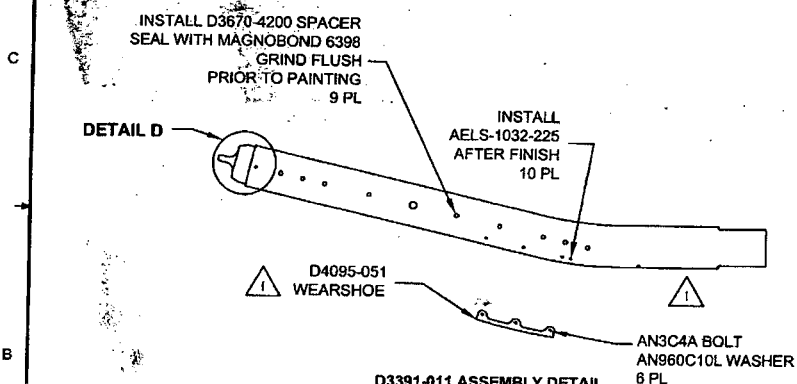
VIEW Z-Z
SCALE 2X

115501 MWJ
140402
RELEASED
2011-11-04

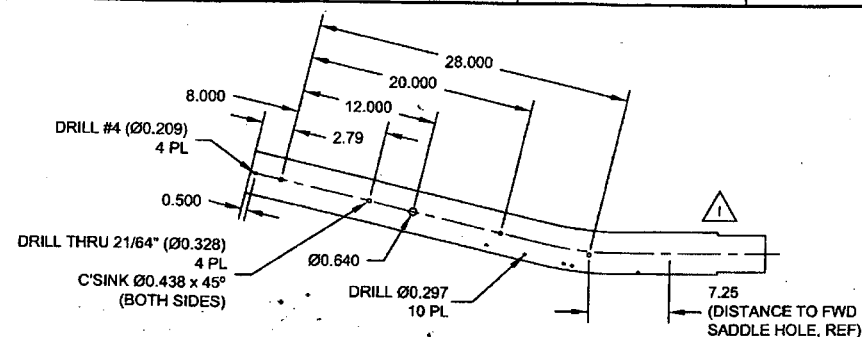
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO. D3391	REV. 1
MFG. APPR.		TITLE	SHEET 3 OF 8
APPROVED		412 FLOAT SKIDTUBE	SCALE
DE APPR.			NTS
DATE	11.10.13	<small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



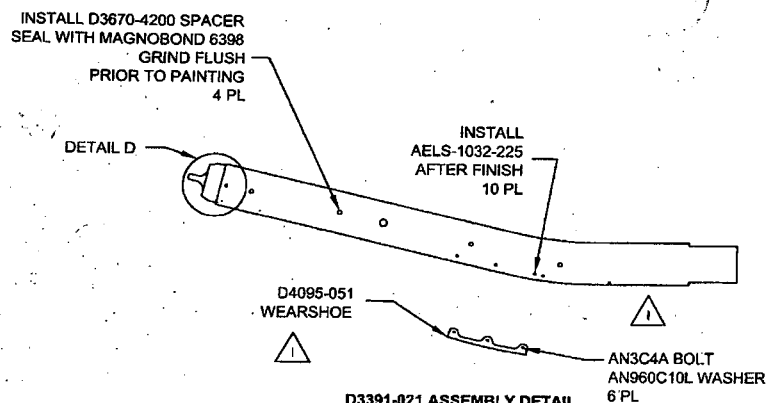
D3391-011 DRILLING DETAIL



D3391-011 ASSEMBLY DETAIL



D3391-021 DRILLING DETAIL



D3391-021 ASSEMBLY DETAIL

D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
		D3391-021	FWD TUBE ASSEMBLY
1	1	D3401-041	TOW CAP
9	4	D3670-4200	SPACER
4	4	D3672-1	WASHER
1	1	D4095-051	WEARSHOE
1	1	D6013-047	FWD TUBE
10	10	AN3C4A	BOLT
10	10	AN960C10L	WASHER
10	10	AELS-1032-225	INSERT

SEAL WITH
SIKAFLEX-241/-291

D3401-041
TOW CAP

DETAIL D
SCALE 2X

AN3C4A BOLT
D3672-1 WASHER
AN960C10L WASHER
4 PL

RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO. D3391	REV. 1 SHEET 4 OF 8
MFG. APPR.		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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